



SEQUENCE LISTING

<110> Crooke, Stanley T.  
Lima, Walter  
Wu, Hongjiang

<120> Methods of Using Mammalian RNase H and Compositions Thereof

<130> ISPH-0520

<140> US/09/781,712

<141> 2001-02-12

<150> US 09/684,254

<151> 2000-10-06

<150> US 09/343,809

<151> 1999-06-30

<150> US 09/203,716

<151> 1998-12-02

<150> US 60/067,458

<151> 1997-12-04

<160> 39

<170> PatentIn version 3.0

<210> 1

<211> 299

<212> PRT

<213> Homo sapiens

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Met Asp Leu Ser Glu Leu Glu Arg Asp Asn Thr Gly Arg Cys Arg Leu  
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Ser Ser Pro Val Pro Ala Val Cys Arg Lys Glu Pro Cys Val Leu Gly  
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Val Asp Glu Ala Gly Arg Gly Pro Val Leu Gly Pro Met Val Tyr Ala  
35 40 45

Ile Cys Tyr Cys Pro Leu Pro Arg Leu Ala Asp Leu Glu Ala Leu Lys  
50 55 60

Val	Ala	Asp	Ser	Lys	Thr	Leu	Leu	Glu	Ser	Glu	Arg	Glu	Arg	Leu	Phe	65	70	75	80
Ala	Lys	Met	Glu	Asp	Thr	Asp	Phe	Val	Gly	Trp	Ala	Leu	Asp	Val	Leu	85	90	95	
Ser	Pro	Asn	Leu	Ile	Ser	Thr	Ser	Met	Leu	Gly	Trp	Val	Lys	Tyr	Asn	100	105	110	
Leu	Asn	Ser	Leu	Ser	His	Asp	Thr	Ala	Thr	Gly	Leu	Ile	Gln	Tyr	Ala	115	120	125	
Leu	Asp	Gln	Gly	Val	Asn	Val	Thr	Gln	Val	Phe	Val	Asp	Thr	Val	Gly	130	135	140	
Met	Pro	Glu	Thr	Tyr	Gln	Ala	Arg	Leu	Gln	Gln	Ser	Phe	Pro	Gly	Ile	145	150	155	160
Glu	Val	Thr	Val	Lys	Ala	Lys	Ala	Asp	Ala	Leu	Tyr	Pro	Val	Val	Ser	165	170	175	
Ala	Ala	Ser	Ile	Cys	Ala	Lys	Val	Ala	Arg	Asp	Gln	Ala	Val	Lys	Lys	180	185	190	
Trp	Gln	Phe	Val	Glu	Lys	Leu	Gln	Asp	Leu	Asp	Thr	Asp	Tyr	Gly	Ser	195	200	205	
Gly	Tyr	Pro	Asn	Asp	Pro	Lys	Thr	Lys	Ala	Trp	Leu	Lys	Glu	His	Val	210	215	220	
Glu	Pro	Val	Phe	Gly	Phe	Pro	Gln	Phe	Val	Arg	Phe	Ser	Trp	Arg	Thr	225	230	235	240
Ala	Gln	Thr	Ile	Leu	Glu	Lys	Glu	Ala	Glu	Asp	Val	Ile	Trp	Glu	Asp	245	250	255	
Ser	Ala	Ser	Glu	Asn	Gln	Glu	Gly	Leu	Arg	Lys	Ile	Thr	Ser	Tyr	Phe	260	265	270	
Leu	Asn	Glu	Gly	Ser	Gln	Ala	Arg	Pro	Arg	Ser	Ser	His	Arg	Tyr	Phe	275	280	285	
Leu	Glu	Arg	Gly	Leu	Glu	Ser	Ala	Thr	Ser	Leu						290	295		

<210> 2

<211> 128

<212> PRT

<213> Mus sp.

<400> 2

Met	Asp	Leu	Ser	Glu	Leu	Glu	Arg	Asp	Asn	Thr	Gly	Arg	Cys	Arg	Leu	1	5	10	15
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Ser Ser Pro Val Pro Ala Val Cys Leu Lys Glu Pro Cys Val Leu Gly

	20								25							30					
Val	Asp	Glu	Ala	Gly	Arg	Gly	Pro	Val	Leu	Gly	Pro	Met	Val	Tyr	Ala						
		35					40					45									
Ile	Cys	Tyr	Cys	Pro	Leu	Ser	Arg	Leu	Ala	Asp	Leu	Glu	Ala	Leu	Lys						
	50					55					60										
Val	Ala	Asp	Ser	Lys	Thr	Leu	Thr	Glu	Asn	Glu	Arg	Glu	Arg	Leu	Phe						
65					70					75					80						
Ala	Lys	Met	Glu	Glu	Asp	Gly	Asp	Phe	Val	Gly	Trp	Ala	Leu	Asp	Val						
				85					90					95							
Leu	Ser	Pro	Asn	Leu	Ile	Ser	Thr	Ser	Met	Leu	Gly	Arg	Val	Lys	Tyr						
			100					105					110								
Asn	Leu	Asn	Ser	Leu	Ser	His	Asp	Thr	Ala	Ala	Gly	Leu	Ile	Gln	Tyr						
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1				5					10					15							
Thr	Glu	Arg	Ser	Lys	Thr	Trp	Asn	Asn	Phe	Gly	Asn	Gly	Ile	Pro	Cys						
			20					25					30								
Val	Leu	Gly	Ile	Asp	Glu	Ala	Gly	Arg	Gly	Pro	Val	Leu	Gly	Pro	Met						
		35					40					45									
Val	Tyr	Ala	Ala	Ala	Ile	Ser	Pro	Leu	Asp	Gln	Asn	Val	Glu	Leu	Lys						
	50					55					60										
Asn	Leu	Gly	Val	Asp	Asp	Ser	Lys	Ala	Leu	Asn	Glu	Ala	Lys	Arg	Glu						
65					70					75					80						
Glu	Ile	Phe	Asn	Lys	Met	Asn	Glu	Asp	Glu	Asp	Ile	Gln	Gln	Ile	Ile						
				85					90					95							
Ala	Tyr	Ala	Leu	Arg	Cys	Leu	Ser	Pro	Glu	Leu	Ile	Ser	Cys	Ser	Met						
			100					105					110								
Leu	Lys	Arg	Gln	Lys	Tyr	Ser	Leu	Asn	Glu	Val	Ser	His	Glu	Ala	Ala						
			115				120					125									
Ile	Thr	Leu	Ile	Arg	Asp	Ala	Leu	Ala	Cys	Asn	Val	Asn	Val	Val	Glu						
	130					135					140										
Ile	Lys	Val	Asp	Thr	Val	Gly	Pro	Lys	Ala	Thr	Tyr	Gln	Ala	Lys	Leu						
145					150					155					160						

Glu Lys Leu Phe Pro Gly Ile Ser Ile Cys Val Thr Glu Lys Ala Asp  
165 170 175

Ser Leu Phe Pro Ile Val Ser Ala Ala Ser Ile Ala Ala Lys Val Thr  
180 185 190

Arg Asp Ser Arg Leu Arg Asn Trp Gln Phe Arg Glu Lys Asn Ile Lys  
195 200 205

Val Pro Asp Ala Gly Tyr Gly Ser Gly Tyr Pro Gly Asp Pro Asn Thr  
210 215 220

Lys Lys Phe Leu Gln Leu Ser Val Glu Pro Val Phe Gly Phe Cys Ser  
225 230 235 240

Leu Val Arg Ser Ser Trp Lys Thr Ala Ser Thr Ile Val Glu Lys Arg  
245 250 255

Cys Val Pro Gly Ser Trp Glu Asp Asp Glu Glu Glu Gly Lys Ser Gln  
260 265 270

Ser Lys Arg Met Thr Ser Trp Met Val Pro Lys Asn Glu Thr Glu Val  
275 280 285

Val Pro Lys Arg Asn Met Glu Ile Asn Leu Thr Lys Ile Val Ser Thr  
290 295 300

Leu Phe Leu  
305

<210> 4

<211> 307

<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 4

Met Val Pro Pro Thr Val Glu Ala Ser Leu Glu Ser Pro Tyr Thr Lys  
1 5 10 15

Ser Tyr Phe Ser Pro Val Pro Ser Ala Leu Leu Glu Gln Asn Asp Ser  
20 25 30

Pro Ile Ile Met Gly Ile Asp Glu Ala Gly Arg Gly Pro Val Leu Gly  
35 40 45

Pro Met Val Tyr Ala Val Ala Tyr Ser Thr Gln Lys Tyr Gln Asp Glu  
50 55 60

Thr Ile Ile Pro Asn Tyr Glu Phe Asp Asp Ser Lys Lys Leu Thr Asp  
65 70 75 80

Pro Ile Arg Arg Met Leu Phe Ser Lys Ile Tyr Gln Asp Asn Glu Glu  
85 90 95

Leu Thr Gln Ile Gly Tyr Ala Thr Thr Cys Ile Thr Pro Leu Asp Ile

100										105					110						
Ser	Arg	Gly	Met	Ser	Lys	Phe	Pro	Pro	Thr	Arg	Asn	Tyr	Asn	Leu	Asn						
		115					120					125									
Glu	Gln	Ala	His	Asp	Val	Thr	Met	Ala	Leu	Ile	Asp	Gly	Val	Ile	Lys						
	130					135					140										
Gln	Asn	Val	Lys	Leu	Ser	His	Val	Tyr	Val	Asp	Thr	Val	Gly	Pro	Pro						
145					150					155					160						
Ala	Ser	Tyr	Gln	Lys	Leu	Glu	Gln	Arg	Phe	Pro	Gly	Val	Lys	Phe							
			165					170					175								
Thr	Val	Ala	Lys	Lys	Ala	Asp	Ser	Leu	Tyr	Cys	Met	Val	Ser	Val	Ala						
		180						185					190								
Ser	Val	Val	Ala	Lys	Val	Thr	Arg	Asp	Ile	Leu	Val	Glu	Ser	Leu	Lys						
		195					200					205									
Arg	Asp	Pro	Asp	Glu	Ile	Leu	Gly	Ser	Gly	Tyr	Pro	Ser	Asp	Pro	Lys						
	210					215					220										
Thr	Val	Ala	Trp	Leu	Lys	Arg	Asn	Gln	Thr	Ser	Leu	Met	Gly	Trp	Pro						
225					230					235					240						
Ala	Asn	Met	Val	Arg	Phe	Ser	Trp	Gln	Thr	Cys	Gln	Thr	Leu	Leu	Asp						
			245						250					255							
Asp	Ala	Ser	Lys	Asn	Ser	Ile	Pro	Ile	Lys	Trp	Glu	Glu	Gln	Tyr	Met						
			260					265					270								
Asp	Ser	Arg	Lys	Asn	Ala	Ala	Gln	Lys	Thr	Lys	Gln	Leu	Gln	Leu	Gln						
		275					280					285									
Met	Val	Ala	Lys	Pro	Val	Arg	Arg	Lys	Arg	Leu	Arg	Thr	Leu	Asp	Asn						
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Trp Tyr Arg  
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<211> 198

<212> PRT

<213> Escherichia coli

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Glu	Val	Gly	Arg	Gly	Pro	Leu	Val	Gly	Ala	Val	Val	Thr	Ala	Ala	Val
		20						25					30		
Ile	Leu	Asp	Pro	Ala	Arg	Pro	Ile	Ala	Gly	Leu	Asn	Asp	Ser	Lys	Lys
		35					40					45			

Leu Ser Glu Lys Arg Arg Leu Ala Leu Tyr Glu Glu Ile Lys Glu Lys  
50 55 60

Ala Leu Ser Trp Ser Leu Gly Arg Ala Glu Pro His Glu Ile Asp Glu  
65 70 75 80

Leu Asn Ile Leu His Ala Thr Met Leu Ala Met Gln Arg Ala Val Ala  
85 90 95

Gly Leu His Ile Ala Pro Glu Tyr Val Leu Ile Asp Gly Asn Arg Cys  
100 105 110

Pro Lys Leu Pro Met Pro Ala Met Ala Val Val Lys Gly Asp Ser Arg  
115 120 125

Val Pro Glu Ile Ser Ala Ala Ser Ile Leu Ala Lys Val Thr Arg Asp  
130 135 140

Ala Glu Met Ala Ala Leu Asp Ile Val Phe Pro Gln Tyr Gly Phe Ala  
145 150 155 160

Gln His Lys Gly Tyr Pro Thr Ala Phe His Leu Glu Lys Leu Ala Glu  
165 170 175

His Gly Ala Thr Glu His His Arg Arg Ser Phe Gly Pro Val Lys Arg  
180 185 190

Ala Leu Gly Leu Ala Ser  
195

<210> 6

<211> 286

<212> PRT

<213> Homo sapiens

<300>

<302> Human Type 2 RNase H

<309>

<310> US/09/203,726

<311> 1998-12-02

<312> 1999-12-14

<400> 6

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1 5 10 15

Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg  
20 25 30

Arg	Gly	Arg	Lys	Thr	Gly	Val	Phe	Leu	Thr	Trp	Asn	Glu	Cys	Arg	Ala		
	35						40					45					
Gln	Val	Asp	Arg	Phe	Pro	Ala	Ala	Arg	Phe	Lys	Lys	Phe	Ala	Thr	Glu		
	50					55					60						
Asp	Glu	Ala	Trp	Ala	Phe	Val	Arg	Lys	Ser	Ala	Ser	Pro	Glu	Val	Ser		
65					70				75						80		
Glu	Gly	His	Glu	Asn	Gln	His	Gly	Gln	Glu	Ser	Glu	Ala	Lys	Pro	Gly		
				85				90						95			
Lys	Arg	Leu	Arg	Glu	Pro	Leu	Asp	Gly	Asp	Gly	His	Glu	Ser	Ala	Gln		
			100					105					110				
Pro	Tyr	Ala	Lys	His	Met	Lys	Pro	Ser	Val	Glu	Pro	Ala	Pro	Pro	Val		
	115						120					125					
Ser	Arg	Asp	Thr	Phe	Ser	Tyr	Met	Gly	Asp	Phe	Val	Val	Val	Tyr	Thr		
	130					135					140						
Asp	Gly	Cys	Cys	Ser	Ser	Asn	Gly	Arg	Arg	Lys	Pro	Arg	Ala	Gly	Ile		
145					150					155					160		
Gly	Val	Tyr	Trp	Gly	Pro	Gly	His	Pro	Leu	Asn	Val	Gly	Ile	Arg	Leu		
				165					170					175			
Pro	Gly	Arg	Gln	Thr	Asn	Gln	Arg	Ala	Glu	Ile	His	Ala	Ala	Cys	Lys		
			180					185					190				
Ala	Ile	Glu	Gln	Ala	Lys	Thr	Gln	Asn	Ile	Asn	Lys	Leu	Val	Leu	Tyr		
	195						200					205					
Thr	Asp	Ser	Met	Phe	Thr	Ile	Asn	Gly	Ile	Thr	Asn	Trp	Val	Gln	Gly		
	210					215					220						
Trp	Lys	Lys	Asn	Gly	Trp	Lys	Thr	Ser	Ala	Gly	Lys	Glu	Val	Ile	Asn		
225					230					235					240		
Lys	Glu	Asp	Phe	Val	Ala	Leu	Glu	Arg	Leu	Thr	Gln	Gly	Met	Asp	Ile		
			245						250					255			
Gln	Trp	Met	His	Val	Pro	Gly	His	Ser	Gly	Phe	Ile	Gly	Asn	Glu	Glu		
			260					265					270				
Ala	Asp	Arg	Leu	Ala	Arg	Glu	Gly	Ala	Lys	Gln	Ser	Glu	Asp				
	275					280						285					

<210> 7

<211> 286

<212> PRT

<213> Homo sapiens

<300>

<301> Wu et al.

<302> Molecular Cloning and Expression of cDNA for Human RNase H  
 <303> Antisense Nucleic Acid Drug Design  
 <304> 8  
 <305> 1  
 <306> 53-61  
 <307> 1998-02-08  
 <308> AF039652  
 <309> 1998-04-02

<400> 7

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Arg	Gly	Arg	Lys	Thr	Gly	Val	Phe	Leu	Thr	Trp	Asn	Glu	Cys	Arg	Ala	35	40	45	
Gln	Val	Asp	Arg	Phe	Pro	Ala	Ala	Arg	Phe	Lys	Lys	Phe	Ala	Thr	Glu	50	55	60	
Asp	Glu	Ala	Trp	Ala	Phe	Val	Arg	Lys	Ser	Ala	Ser	Pro	Glu	Val	Ser	65	70	75	80
Glu	Gly	His	Glu	Asn	Gln	His	Gly	Gln	Glu	Ser	Glu	Ala	Lys	Ala	Ser	85	90	95	
Lys	Arg	Leu	Arg	Glu	Pro	Leu	Asp	Gly	Asp	Gly	His	Glu	Ser	Ala	Glu	100	105	110	
Pro	Tyr	Ala	Lys	His	Met	Lys	Pro	Ser	Val	Glu	Pro	Ala	Pro	Pro	Val	115	120	125	
Ser	Arg	Asp	Thr	Phe	Ser	Tyr	Met	Gly	Asp	Phe	Val	Val	Val	Tyr	Thr	130	135	140	
Asp	Gly	Cys	Cys	Ser	Ser	Asn	Gly	Arg	Arg	Arg	Pro	Arg	Ala	Gly	Ile	145	150	155	160
Gly	Val	Tyr	Trp	Gly	Pro	Gly	His	Pro	Leu	Asn	Val	Gly	Ile	Arg	Leu	165	170	175	
Pro	Gly	Arg	Gln	Thr	Asn	Gln	Arg	Ala	Glu	Ile	His	Ala	Ala	Cys	Lys	180	185	190	
Ala	Ile	Glu	Gln	Ala	Lys	Thr	Gln	Asn	Ile	Asn	Lys	Leu	Val	Leu	Tyr	195	200	205	
Thr	Asp	Ser	Met	Phe	Thr	Ile	Asn	Gly	Ile	Thr	Asn	Trp	Val	Gln	Gly	210	215	220	



Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240

Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255

Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
260 265 270

Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
275 280 285

<210> 8

<211> 286

<212> PRT

<213> Homo sapiens

<300>

<301> Cerritelli and Crouch

<302> Cloning, Expression and Mapping of Ribonucleases H of Human and Mouse  
Related to Bacterial RNase HI

<303> Genomics

<304> 53

<305> 3

<306> 300-307

<307> 1998-11-01

<400> 8

Met Ser Trp Phe Leu Phe Leu Ala His Arg Val Ala Leu Ala Ala Leu  
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Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg  
20 25 30

Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
35 40 45

Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60

Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
65 70 75 80

Glu Gly His Glu Asn Gln His Gly Gln Glu Ser Glu Ala Lys Ala Ser  
85 90 95

Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Glu  
100 105 110

Pro	Tyr	Ala	Lys	His	Met	Lys	Pro	Ser	Val	Glu	Pro	Ala	Pro	Pro	Val
		115					120					125			
Ser	Arg	Asp	Thr	Phe	Ser	Tyr	Met	Gly	Asp	Phe	Val	Val	Val	Tyr	Thr
	130					135					140				
Asp	Gly	Cys	Cys	Ser	Ser	Asn	Gly	Arg	Arg	Arg	Pro	Arg	Ala	Gly	Ile
145					150					155					160
Gly	Val	Tyr	Trp	Gly	Pro	Gly	His	Pro	Leu	Asn	Val	Gly	Ile	Arg	Leu
				165					170					175	
Pro	Gly	Arg	Gln	Thr	Asn	Gln	Arg	Ala	Glu	Ile	His	Ala	Ala	Cys	Lys
			180					185					190		
Ala	Ile	Glu	Gln	Ala	Lys	Thr	Gln	Asn	Ile	Asn	Lys	Leu	Val	Leu	Tyr
		195					200					205			
Thr	Asp	Ser	Met	Phe	Thr	Ile	Asn	Gly	Ile	Thr	Asn	Trp	Val	Gln	Gly
	210					215					220				
Trp	Lys	Lys	Asn	Gly	Trp	Lys	Thr	Ser	Ala	Gly	Lys	Glu	Val	Ile	Asn
225					230					235					240
Lys	Glu	Asp	Phe	Val	Ala	Leu	Glu	Arg	Leu	Thr	Gln	Gly	Met	Asp	Ile
			245						250					255	
Gln	Trp	Met	His	Val	Pro	Gly	His	Ser	Gly	Phe	Ile	Gly	Asn	Glu	Glu
			260					265					270		
Ala	Asp	Arg	Leu	Ala	Arg	Glu	Gly	Ala	Lys	Gln	Ser	Glu	Asp		
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<210> 9

<211> 286

<212> PRT

<213> Homo sapiens

<300>

<301> Frank, Braunhofer-Reiter, Poltl and Holzmann

<302> Cloning, Subcellular Localization and Functional Expression of Human RNase HII

<303> Biol. Chem.

<304> 379

<305> 99

<306> 1407-1412

<307> 1998-12-01

<400> 9

Met Ser Trp Leu Leu Phe Leu Ala His Arg Val Ala Leu Ala Ala Leu  
1 5 10 15  
Pro Cys Arg Arg Gly Ser Arg Gly Phe Gly Met Phe Tyr Ala Val Arg  
20 25 30  
Arg Gly Arg Lys Thr Gly Val Phe Leu Thr Trp Asn Glu Cys Arg Ala  
35 40 45  
Gln Val Asp Arg Phe Pro Ala Ala Arg Phe Lys Lys Phe Ala Thr Glu  
50 55 60  
Asp Glu Ala Trp Ala Phe Val Arg Lys Ser Ala Ser Pro Glu Val Ser  
65 70 75 80  
Glu Gly His Glu Asn Gln His Gly Arg Glu Ser Glu Ala Lys Ala Ser  
85 90 95  
Lys Arg Leu Arg Glu Pro Leu Asp Gly Asp Gly His Glu Ser Ala Glu  
100 105 110  
Pro Tyr Ala Lys His Met Lys Pro Ser Val Glu Pro Ala Pro Pro Val  
115 120 125  
Ser Arg Asp Thr Phe Ser Tyr Met Gly Asp Phe Val Val Val Tyr Thr  
130 135 140  
Asp Gly Cys Cys Ser Ser Asn Gly Arg Arg Arg Pro Arg Ala Gly Ile  
145 150 155 160  
Gly Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu  
165 170 175  
Pro Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys  
180 185 190  
Ala Ile Glu Gln Ala Lys Thr Gln Asn Ile Asn Lys Leu Val Leu Tyr  
195 200 205  
Thr Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Arg Gly  
210 215 220  
Trp Lys Lys Asn Gly Trp Lys Thr Ser Ala Gly Lys Glu Val Ile Asn  
225 230 235 240  
Lys Glu Asp Phe Val Ala Leu Glu Arg Leu Thr Gln Gly Met Asp Ile  
245 250 255  
Gln Trp Met His Val Pro Gly His Ser Gly Phe Ile Gly Asn Glu Glu  
260 265 270  
Ala Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
275 280 285

<210> 10

<211> 299

<212> PRT

<213> Homo sapiens

<300>

<301> Frank, Braunshofer-Reiter, Wintersberger, Grimm and Busen

<302> Cloning of the cDNA encoding the large subunit of human RNase HI, a homologue of the prokaryotic RNase HII

<303> Proc. Natl. Acad. Sci. USA

<304> 95

<305> 22

<306> 12872-12877

<307> 1998-10-27

<400> 10

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Ser	Ser	Pro	Val	Pro	Ala	Val	Cys	Arg	Lys	Glu	Pro	Cys	Val	Leu	Gly	
			20					25					30			
Val	Asp	Glu	Ala	Gly	Arg	Gly	Pro	Val	Leu	Gly	Pro	Met	Val	Tyr	Ala	
		35					40					45				
Ile	Cys	Tyr	Cys	Pro	Leu	Pro	Arg	Leu	Ala	Asp	Leu	Glu	Ala	Leu	Lys	
	50					55					60					
Val	Ala	Asp	Ser	Lys	Thr	Leu	Leu	Glu	Ser	Glu	Arg	Glu	Arg	Leu	Phe	
65					70				75						80	
Ala	Lys	Met	Glu	Asp	Thr	Asp	Phe	Val	Gly	Trp	Ala	Leu	Asp	Val	Leu	
			85						90					95		
Ser	Pro	Asn	Leu	Ile	Ser	Thr	Ser	Met	Leu	Gly	Arg	Val	Lys	Tyr	Asn	
			100					105					110			
Leu	Asn	Ser	Leu	Ser	His	Asp	Thr	Ala	Thr	Gly	Leu	Ile	Gln	Tyr	Ala	
	115						120					125				
Leu	Asp	Gln	Gly	Val	Asn	Val	Thr	Gln	Val	Phe	Val	Asp	Thr	Val	Gly	
	130					135					140					
Met	Pro	Glu	Thr	Tyr	Gln	Ala	Gln	Leu	Gln	Gln	Ser	Phe	Pro	Gly	Ile	
145					150				155						160	
Glu	Val	Thr	Val	Lys	Ala	Lys	Ala	Asp	Ala	Leu	Tyr	Pro	Val	Val	Ser	
				165					170					175		
Ala	Ala	Ser	Ile	Cys	Ala	Lys	Val	Ala	Arg	Asp	Gln	Ala	Val	Lys	Lys	
			180					185					190			
Trp	Gln	Phe	Val	Glu	Lys	Leu	Gln	Asp	Leu	Asp	Thr	Asp	Tyr	Gly	Ser	

195					200					205					
Gly	Tyr	Pro	Asn	Asp	Pro	Lys	Thr	Lys	Ala	Trp	Leu	Lys	Glu	His	Val
210					215					220					
Glu	Pro	Val	Phe	Gly	Phe	Pro	Gln	Phe	Val	Arg	Phe	Ser	Trp	Arg	Thr
225					230					235					240
Ala	Gln	Thr	Ile	Leu	Glu	Lys	Glu	Ala	Glu	Asp	Val	Ile	Trp	Glu	Asp
				245					250					255	
Ser	Ala	Ser	Glu	Asn	Gln	Glu	Gly	Leu	Arg	Lys	Ile	Thr	Ser	Tyr	Phe
			260					265					270		
Leu	Asn	Glu	Gly	Ser	Gln	Ala	Arg	Pro	Arg	Ser	Ser	His	Arg	Tyr	Phe
		275					280					285			
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	290					295									

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<301> Cerritelli and Crouch

<302> Cloning, Expression and Mapping of Ribonucleases H of Human and Mouse Related to Bacterial RNase HI

<303> Genomics

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<307> 1998-11-01

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Arg	Leu	Arg	Arg	Gly	Ile	Cys	Gly	Leu	Gly	Met	Phe	Tyr	Ala	Val	Arg
			20					25					30		

Arg	Gly	Arg	Arg	Thr	Gly	Val	Phe	Leu	Ser	Trp	Ser	Glu	Cys	Lys	Ala
	35						40					45			

Gln	Val	Asp	Arg	Phe	Pro	Ala	Ala	Arg	Phe	Lys	Lys	Phe	Ala	Thr	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50

55

60

Asp Glu Ala Trp Ala Phe Val Arg Ser Ser Ser Ser Pro Asp Gly Ser  
 65 70 75 80  
 Lys Gly Gln Glu Ser Ala His Glu Gln Lys Ser Gln Ala Lys Thr Ser  
 85 90 95  
 Lys Arg Pro Arg Glu Pro Leu Gly Glu Gly Glu Glu Leu Pro Glu Pro  
 100 105 110  
 Gly Pro Lys His Thr Arg Gln Asp Thr Glu Pro Ala Ala Val Val Ser  
 115 120 125  
 Lys Asp Thr Phe Ser Tyr Met Gly Glu Ser Val Ile Val Tyr Thr Asp  
 130 135 140  
 Gly Cys Cys Ser Ser Asn Gly Arg Lys Arg Ala Arg Ala Gly Ile Gly  
 145 150 155 160  
 Val Tyr Trp Gly Pro Gly His Pro Leu Asn Val Gly Ile Arg Leu Pro  
 165 170 175  
 Gly Arg Gln Thr Asn Gln Arg Ala Glu Ile His Ala Ala Cys Lys Ala  
 180 185 190  
 Ile Met Gln Ala Lys Ala Gln Asn Ile Ser Lys Leu Val Leu Tyr Thr  
 195 200 205  
 Asp Ser Met Phe Thr Ile Asn Gly Ile Thr Asn Trp Val Gln Gly Trp  
 210 215 220  
 Lys Lys Asn Gly Trp Arg Thr Ser Thr Gly Lys Asp Val Ile Asn Lys  
 225 230 235 240  
 Glu Asp Phe Met Glu Leu Asp Glu Leu Thr Gln Gly Met Asp Ile Gln  
 245 250 255  
 Trp Met His Ile Pro Gly His Ser Gly Phe Val Gly Asn Glu Glu Ala  
 260 265 270  
 Asp Arg Leu Ala Arg Glu Gly Ala Lys Gln Ser Glu Asp  
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 12

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